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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-----------------------------------|----------------------|--------------------------|------------------|
| 09/577,232 | 05/23/2000 | Lundy Lewis | APB-022 | 3633 |
| 46141 | 7590 01/12/2006 | | EXAM | INER |
| LAHIVE & 0 28 STATE ST | E & COCKFIELD, LLP ENGLAND, DAVID | | DAVID E | |
| BOSTON, M | · | | ART UNIT | PAPER NUMBER |
| | | | 2143 | |
| | | | DATE MALLED OF TRANSPORT | |

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| S. Patent and Trademark Office | | | | | | |
|---|--|---|--|--|--|--|
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review 3) Information Disclosure Statement(s) (PTO-1448) Paper No(s)/Mail Date | | Paper No | Summary (PTO-413) (s)/Mail Date Informal Patent Application (PTO-152) | | | |
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| * See the attached detailed Office a | • | | t received. | | | |
| Copies of the certified copies application from the Internation | · · · | | r received in this ivational Stage | | | |
| 2. Certified copies of the prior | | | | | | |
| 1. Certified copies of the prior | - | | Application No. | | | |
| a) All b) Some * c) None o | | hoon received | | | | |
| 12) Acknowledgment is made of a cla | | under 35 U.S.C. | § 119(a)-(d) or (f). | | | |
| • | tan Kamba sata sa ta ta | | 0.440/=\ /=\\ /0 | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 11) The oath or declaration is objecte | d to by the Examiner | . Note the attache | d Office Action or form PTO-152. | | | |
| | | | g(s) is objected to. See 37 CFR 1.121(d | | | |
| Applicant may not request that any o | • | | • | | | |
| 10) The drawing(s) filed on is/a | | or b) objected to | by the Examiner. | | | |
| 9) The specification is objected to by | the Examiner | | | | | |
| Application Papers | | | | | | |
| 8) Claim(s) are subject to res | striction and/or election | on requirement. | | | | |
| 7) Claim(s) is/are objected to | | | | | | |
| 6)⊠ Claim(s) <u>31-58</u> is/are rejected. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 4a) Of the above claim(s) i | s/are withdrawn from | n consideration. | | | | |
| 4) Claim(s) 31-58 is/are pending in | . , | | | | | |
| Disposition of Claims | | | | | | |
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| closed in accordance with the pra | | • | | | | |
| · <u> </u> | action is 1 MAE. 25/23 This action is non-linear. | | | | | |
| 2a) ☐ This action is FINAL . | | | | | | |
| 1) Responsive to communication(s) | filed on 17 October | 2005 | | | | |
| Status | | | | | | |
| WHICHEVER IS LONGER, FROM THE - Extensions of time may be available under the provis after SIX (6) MONTHS from the mailing date of this o - If NO period for reply is specified above, the maximu - Failure to reply within the set or extended period for a Any reply received by the Office later than three mon earned patent term adjustment. See 37 CFR 1.704(t | ions of 37 CFR 1.136(a). In i ommunication. m statutory period will apply a eply will, by statute, cause th ths after the mailing date of th | no event, however, may a and will expire SIX (6) MO e application to become A | reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133). | | | |
| A SHORTENED STATUTORY PERIO | | | | | | |
| The MAILING DATE of this comm Period for Reply | nunication appears oi | i the cover sheet w | vith the correspondence address | | | |
| | | E. England | 2143 | | | |
| Office Action Summary | Exam | iner | Art Unit | | | |
| | | 77,232 | LEWIS, LUNDY | | | |
| | i | | | | | |

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DETAILED ACTION

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1. Claims 1-3 and 6-30 are presented for examination.

Claim Objections

- 2. Claims 31 58 are objected to because of the following informalities: Independent claims 31 and 46 recite the limitation of, "determining an <u>effect</u> of the measured component parameter on the state of the service parameter," while independent claims 39 and 53 recite the limitation of, "determining, based on the plurality of component parameters, how the plurality of component parameters <u>affect</u> the service parameter to manage the service associated with the network". "Effect" and "Affect" are two separate word with two different definitions and it is unsure if this is a misspelling or intentional to make the claims distinct. Applicant is asked to either make a spelling correction or describe why these are different and where in the specification and drawings it is supported. Appropriate correction is required.
- Claims 38 and 45 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
- 4. Claim 38 and 45 recite that "a network component comprises **one or more of:** a transmission device, a transmission media, a computer system, and an application." For a network to exist it would need at least two computing devices, that is if we are in reference to

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external networks. If we are talking about internal networks than it would have to be at least one computing device with two components, or memory and processors, to communicate with each other. Furthermore, any device in a network is a type transmission device.

5. All other claims that are dependent to the claims discussed above in this Objection are objected to for their dependency in their independent claims.

Claim Rejections - 35 USC § 112

- 6. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 7. Claims 31 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 8. In claims 31 and 46, the limitation of, "determining an effect of the measured component parameter on the state of the service parameter," is not clear as to how ones determination of measuring a component parameter has an effect on the state of the service parameter, nor what "the effect" is in regards to. Applicant is asked to point to specific sections of the body of the specification and drawings to support their Remarks.

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9. In claims 39 and 53, the limitation of, "implementing service level management of a business process in connection with a computer network having **one or more** network entities", is indefinite because for there to be a network there at least has to be two network entities to communicate with each other. Applicant is asked to fix this limitation.

10. All other claims not mentioned above are rejected for their dependency on their independent claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 12. Claims 31, 32, 34 36, 38 43, 45 47, 49 51 and 53 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Glitho et al. (6233449) (hereinafter Glitho).
- As per claim 31, as closely interpreted by the Examiner, Glitho teaches a method of providing service level management of a business process in connection with a computer network, wherein the business process is supported by a service operated on the computer network, wherein the service is supported by at least one network component within the

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computer network, wherein the service is to be provided at an agreed upon service level, and wherein a measure of performance of the service indicates a current service level of the business process, the method comprising, (e.g., col. 4, lines 10 – 28 & col. 4, line 55 – col. 5, line 40):

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- measuring a component parameter of the at least one network component, the component parameter indicating an operational characteristic of the at least one network component, (e.g., col. 4, line 55 col. 5, line 40);
- determining a service parameter representative of a measure of performance of the service, the service parameter having a state used to determine conformity of the business process to the agreed upon service level, (e.g., col. 4, line 65 col. 5, line 40); and
- determining an effect of the measured component parameter on the state of the service parameter, (e.g., col. 5, lines 12 54, "run multiple simulations").
- 17. As per claim 32, as closely interpreted by the Examiner, Glitho teaches determining an effect the component parameter has on the service parameter, the determination comprising one or more of:
- 18. a data mining based process;
- 19. a neural network based process;
- 20. a machine learning based process;
- 21. an iterative dichotomizing third derivative based process;
- an algorithm based process, (e.g., col. 4, line 65 col. 5, line 29, "calculations to detect" & col. 7, lines 21 45, "Different types of correlation algorithms..."); and
- a selected statistical based process.

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- 24. As per claim 34, as closely interpreted by the Examiner, Glitho teaches the service parameter represents one or more of:
- 25. a response time of a network resource;
- 26. traffic congestion of a selected portion of the network, (e.g. col. 1, line 43 col. 2, line 29 & col. 4, line 55 col. 5, line 40);
- 27. availability of a network resource;
- 28. reliability of a network resource, (e.g. col. 1, line 43 col. 2, line 29 & col. 4, line 55 col. 5, line 40);
- 29. security of a network resource;
- 30. performance of a network resource, (e.g. col. 1, line 43 col. 2, line 29 & col. 4, line 55 col. 5, line 40); and
- 31. configuration of a network resource.
- 32. As per claim 35, as closely interpreted by the Examiner, Glitho teaches the network component is associated with a network component monitoring agent of a network management system, (e.g., col. 4, line 65 col. 5, line 40, "Action Proposal Agent (APA)").
- As per claim 36, as closely interpreted by the Examiner, Glitho teaches determining interfaces between the network component and the network component monitoring agent, (e.g., col. 4, line 65 col. 5, line 40, "Action Proposal Agent (APA)" and "Link performance, Hardware performance, System performance").

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34. As per claim 40, as closely interpreted by the Examiner, Glitho teaches storing the plurality of component parameters associated with the one or more network entities in a storage device, (e.g., col. 5, line 41 - col. 6, line 35).

- As per claim 41, as closely interpreted by the Examiner, Glitho teaches managing the network based on the state of the service indicated by the service parameter, (e.g., col. 4, line 65 col. 5, line 40).
- As per claim 42, as closely interpreted by the Examiner, Glitho teaches instructing the one or more network entities addressable by the network to take an action based on the state of the service indicated by the service parameter, (e.g., col. 4, line 65 col. 5, line 40).
- As per claim 43, as closely interpreted by the Examiner, Glitho teaches interfacing with a management platform associated with the network to manage the service associated with the network, (e.g., col. 4, line 65 col. 5, line 48 & col. 5, line 63 col. 6, line 44).
- 38. Claims 38, 39, 45 47, 49 51 and 53 57 are rejected for similar reasons stated above.

Claim Rejections - 35 USC § 103

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39. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the

manner in which the invention was made.

40. Claims 33 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glitho

(6233449) in view of Hunter (6449603).

41. As per claim 33, as closely interpreted by the Examiner, Glitho does not specifically

teach representing an effect of the component parameter on the service parameter, wherein the

representation includes one or more of:

42. decision tree;

43. propositional statement;

44. quantified statement;

45. weighted listing;

46. graph.

47. Hunter teaches representing an effect of the component parameter on the service

parameter, wherein the representation includes one or more of:

48. decision tree;

49. propositional statement;

50. quantified statement;

51. weighted listing;

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- graph, (e.g. col. 1, line 9 col. 2, line 64 & col. 7, line 60 col. 8, line 48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Hunter with Glitho because it would be more efficient for a system to utilize types of algorithms and/or statistical applications to train a system to predict outcomes of events utilizing what is most likely to happen, (i.e. statistical data, example choosing a chores of action that happens 90% of the time rather then the action that happens 10% of the time).
- 53. Claim 48 is rejected for similar reasons as stated above.
- 54. Claims 37, 44, 52 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glitho (6233449) in view of Yemini et al. (6249755) (hereinafter Yemini).
- As per claim 37, as closely interpreted by the Examiner, Glitho does not specifically teach the service level management domain comprises a plurality of management applications integrated into a hierarchical structure having a plurality of layers.
- Yemini teaches the service level management domain comprises a plurality of management applications integrated into a hierarchical structure having a plurality of layers, (e.g. col. 2, lines 6 46 & col. 7, lines 8 60). It would have been obvious to one of ordinary skill in the art at the time the invention was conceived to combine Glitho with Yemini because it would be advantageous for a system to have a type of monitoring agent on more then one layer of the OSI network model to monitor information that other layers are incapable of monitoring.

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57. Claims 44, 52 and 58 are rejected for similar reasons as stated above.

Response to Arguments

58. Applicant's arguments with respect to claims 31 - 58 have been considered but are moot

in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David E. England whose telephone number is 571-272-3912.

The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England

Examiner

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